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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/807,116 | 03/24/2004 | Kazutoshi Kaji | 62807-175 | 3682 |
| 7590 | 12/22/2004 | | EXAMINER | |
| McDermott, Will & Emery 600, 13th Street, N.W. Washington, DC 20005-3096 | | | | WELLS, NIKITA |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2881 | |

DATE MAILED: 12/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|-----------------|--------------|--------|
| Office Action Summary | Application No. | Applicant(s) | (b)(1) |
| | 10/807,116 | KAJI ET AL. | |
| | Examiner | Art Unit | |
| | Nikita Wells | 2881 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 24 March 2004.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-10 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-10 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 24 March 2004 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1.) Certified copies of the priority documents have been received.
 2.) Certified copies of the priority documents have been received in Application No. _____.
 3.) Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>121504</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-10 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The claims are rejected because of poor use of the English language and incorrect usage of the technical words normally accepted in this area of technology. As an example terms that are used throughout the claims and Specification that should be changed are:

“electron beam dispersion portion” should probably be --electron beam energy filter-- or

--electron beam dispersion device--.

“magnetic prism” should probably be --magnetic field sector analyzer-- or --magnetic sector--.

“electron beam incidence means” is vague and should probably be defined as –electron

beam focusing or deflection means with some sort of angle of incidence mentioned--.

“electron beam generator” should probably be --electron beam gun or source--.

“element distribution” should probably be --electron beam distribution--.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. As best as could be understood by the Examiner, assuming corrected usage of the technical words and their meaning, claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by O.L. Krivanek (4,743,756).

With respect to claim 1, O.L. Krivanek discloses (Abstract; Fig. 1; Col. 1, lines 14-23; Col. 3, lines 51-68; Col. 4, lines 5-22) an electron microscope having an energy filter (15) for measuring electron beam energy loss spectra or observing element distribution states by analyzing the energy of an electron beam, wherein the electron beam energy loss spectrum of an electron beam irradiated on a sample surface (12) at a position (Col. 4, lines 18-22) at most 10 micrometers shifted away from the optical axis of said electron microscope has an energy deviation of 1 eV or below relative to that of said electron beam irradiated on said sample surface (12) along the optical axis of said electron microscope.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 2-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Taniguchi et al. (2004/0000641 A1). With respect to these claims, Taniguchi et al. disclose (Abstract; Claim 3; Figs. 1-3; [0005, 0006, 0044-0045]) an electron microscope (1) having an energy filter (22) that

comprises an energy dispersion means for analyzing the energy of an electron beam (42); and deflection coils (13, 14) respectively disposed on the upstream and downstream sides of said energy dispersion means (22), wherein said deflection coil (13) disposed on the upstream side of said energy dispersion means (22) corrects said electron beam (42) for its path in two directions of perpendicular axes in a plane normal to the optical axis of said energy dispersion means (22), or in two-dimensional way, and said deflection coil (14) disposed on the downstream side of said energy dispersion means (22) corrects said electron beam (42) for its path in a plane normal to said optical axis of said energy dispersion means so that at least one of the directions in which said electron beam (42) is corrected for its path coincides with the energy axis of an energy dispersion plane formed by said energy dispersion means (22). Taniguchi et al. also disclose an electron microscope (1) wherein said electron beam (42) incidence means is composed of one or more deflection coils (13, 14) and the use of a slit (23) for selecting said electron beam on the basis of its energy resulting from the analysis of said electron beam by said energy dispersion means (22).

Specification

6. A substitute specification in proper idiomatic English and in compliance with 37 CFR 1.52(a) and (b) is required. The substitute specification filed must be accompanied by a statement that it contains no new matter.

The disclosure is objected to because of poor use of the English language and incorrect usage of the technical words normally accepted in this area of technology as pointed out in paragraph #2 above.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kaji et al. (6,703,613 B2 and 6,794,648 B2) disclose an electron energy loss spectrometer to determine the beam energy loss transmitted through an object to be analyzed. Brink et al. (6,184,524 B1) and Kundmann et al. (5,798,524) disclose an energy filtering system of an energy filtering transmission electron microscope which is automatically adjusted using a computer.
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nikita Wells whose telephone number is (571) 272-2484. The examiner can normally be reached on 8:30 AM - 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Lee can be reached on (571) 272-2477. The central fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.
9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Nikita Wells, Primary Examiner

Art Unit 2881

December 16, 2004